# GEOINT 2008 SYMPOSIUM Nashville, Tennessee

**OCTOBER 30, 2008** 

# Mr. SCOTT LARGE Director, National Reconnaissance Office (NRO)

## Mission-Focused Transitioning to the Future

(As prepared)

Good morning, and welcome to the final day of GEOINT 2008. Before we begin, I'd like to tell you a little about why this year's theme is so compelling to me.

Nearly a year ago I was at Cape Canaveral, preparing for NRO Launch 24. Capt Luke Lukenbill was monitoring the launch, and as we were sitting there waiting he told me his nephew Christopher had shipped off to Iraq the week before. It was the way he said it, in the context of the launch and how glad he was to be able to do something to directly support his nephew that hit home to me. Then he and his team dedicated the launch to Christopher and all troops in harm's way.

When the news came three months later, that Christopher had been killed on St. Patrick's Day of this year by an I.E.D., it was devastating. It was family. It was personal. That young soldier was a member of our family – and I can tell you there were a lot of people at the NRO who felt the same way. I felt a terrible loss, and a sense that in some way we had let him down. Despite the best reconnaissance systems and the best intelligence in the world, it was not enough. Christopher was gone.

So, you can see why the theme of this year's conference hits especially close to home. The loss of this dedicated young man and many others has made us more focused than ever on the mission, and reinforced my belief in the critical role our systems must continue to play in saving the precious lives of our most selfless citizens.

The stated mission of the National Reconnaissance Office is to carry out the "research and development, acquisition, launch and operation of overhead reconnaissance systems necessary to meet the needs of the Intelligence Community and of the Department of Defense." Since the Office was formed in 1961, the NRO has faithfully carried out these duties. Over the course of its nearly 50 year history, the NRO has responded to evolving mission requirements with the

agility, creativity, and excellent science that has been the hallmark of the organization from the beginning.

However, globalization, rapid technological advances, and a shifting threat landscape have driven changes in military and Intelligence Community mission requirements. These changes have in turn precipitated a dramatic shift in the way the NRO must conduct business – culminating in a transformation of our organization that is already, after less than a year, improving the role we play in addressing changing user needs. NRO ground and overhead systems are key players in the timely delivery of better intelligence to even the most disadvantaged users. Access, Content, Timeliness – those are the three areas that the NRO & its mission partners must aggressively advance in support of the IC and DoD if we are to achieve decision advantage, save lives, and protect our nation from harm.

The NRO is in the midst of the most extensive reorganization and reform in fifteen years; rebuilding the discipline and processes that will help us achieve the goals laid out in the 2006 NRO Strategic Framework: to be the foundation for Global Situational Awareness, and to provide intelligence on timelines responsive to user needs. These goals were the impetus behind our transformation, which reaffirms the NRO's critical position in an evolved, mission-focused United States Intelligence Enterprise that directly supports the DNI's stated mission for the Intelligence Community.

In his Vision 2015, the DNI states that the Intelligence Community's mission is "to create decision advantage for our customers". The NRO's piece of that mission is to provide our combatant commands and the IC timely access to the optimized intelligence they need to ensure the security of the nation. The NRO's agile, highly sensitive overhead systems and secure, integrated networks respond swiftly and seamlessly to time-sensitive intelligence requirements. The decision advantage identified by the DNI as the crux of the Intelligence Community mission is greatly enhanced by the data collected by NRO systems.

While transitioning the organization we can not lose sight of our priorities. They are grounded in three areas of excellence: operations, acquisition, and innovation. You might translate this to excellence today, tomorrow, and for the future. First, we have to stay focused on operations because that is our bread and butter, and how we save lives each and every day. Our 24/7 operations, tightly integrated with our NGA and NSA partners, ensures the availability of critical data. We focus on acquisition excellence because global situational awareness is key to decision advantage. Successful acquisition programs are the only way we can meet this imperative. Changes have been required to meet this goal. Finally, we focus on innovation because now more than ever in history, rapid advances in technology combined with vastly different types of threats and adversaries require new ways of looking at problems.

NRO systems provide operational mission critical support to warfighters across the globe. With an expanding arsenal of sensing capabilities, multi-int fusion methods, and collaboration across communities, NRO systems and secure networks have ensured the timely delivery of accurate, insightful, life-saving intelligence to our nation's defenders. There is an acute need for an enterprise that can swiftly deliver accurate, comprehensive intelligence to those who need it. The DNI's vision, to create a globally networked and integrated Intelligence Enterprise, is the means

by which our community will meet that need. We are working closely with mission partners to ensure our current operational systems effectively support the integrated tasking, collection, processing, exploitation, and dissemination workflow necessary for mission success today and in the future.

The NRO Transformation plan has entailed a complete restructuring of our leadership chains, directorates, functional areas and governance processes. There were multiple reasons for these changes, not the least of which was a pressing need to recover from the era of acquisition reform. The era of acquisition reform that took hold in the mid 1990's was a well intentioned attempt to reduce both overhead collection system cost and the delivery time of new capabilities. The philosophy of applying best commercial practices to deliver critical intelligence collection capabilities faster, better, and cheaper held promise. However, as we later found, the management techniques and industrial relationships that acquisition reform fostered had led the NRO and the broader national security space community down a path of diminished oversight, weakened systems engineering, and ultimately, declining performance in program execution. I'll talk a bit later about how we are overcoming these challenges, reinvigorating the acquisition process and applying the NRO's original principals and commitment to excellence to today's acquisition challenges.

Innovation at the NRO is certainly not a new concept, but as our mission grows, innovative solutions to global persistence and timely delivery become more and more important. Working with NGA and NSA, our R&D elements are delivering some of the Intelligence Community's most high-value overhead and ground technologies and capabilities. There are many innovations underway at the NRO that are not just meeting today's mission, but will lay the groundwork for the challenging missions of the future.

If you haven't seen the exhibits yet, I encourage you to take a look around. This year the NRO has teamed with NGA to show how we are working together to answer the needs of our users – to SEE, KNOW, and SHARE. In addition to the obvious collaboration/sharing message of our joint exhibit, the NRO Futures Lab demos illustrate some of the ways our R&D labs are improving access, content, and timeliness. These emerging capabilities will enable comprehensive data access & navigation, optimize, organize, and fuse content, and facilitate rapid intelligence to remote users. It's exciting to see how we are using technology to enable our users to see, know, and share mission critical intelligence.

As a nation, the challenges we face today include terrorism, weapons proliferation, drugs, financial instability, natural and man-made disasters, cyber threats – and the growing threat to space systems, to name a few. Add to that the changing scope of the Intelligence Community mission, effective mission execution, a strained budgetary environment, industrial base issues, interoperability and integration challenges, and workforce concerns. When we break it down to NRO-level challenges, we add the fragility factor; our aging constellation and recovery from acquisition reform.

Our mission has grown - not changed. The hard problems that drove the development of a U.S. overhead reconnaissance capability during the Cold War have not gone away. Our needs, whether to penetrate denied areas, reduce uncertainty through reliable, unbiased evidence, or to

improve America's national security options, are as valid today as they were then. Evolving intelligence problems expanded the NRO mission over time. The original NTM mission, to provide strategic warning, grew to include operational support, including treaty monitoring, arms reduction, and tactical support to operations.

Over the past ten years the emergence of extremely diverse, agile target sets has expanded our mission scope even further. The need to provide relevant, timely overhead support that contributes to information superiority and global situational awareness for our troops and leaders makes our mission more complex and far-reaching today than it has ever been. As I'm sure you'll hear from Bob Kehler later this morning, we are now also faced with growing threats to our space systems. Anti-satellite weapons, denial of service, and the ability of adversaries to take advantage of increasingly available satellite capabilities makes this a significant area of concern not just for the NRO, but for the entire space enterprise.

As you may already know, we've taken a committed step forward by establishing a joint space protection program with AFSPC to preserve space capabilities vital to U.S. interests. This joint program will provide decision makers with strategic recommendations on how best to protect our space systems, and stay ahead of the threat.

In the face of this growing mission, the Intelligence Community is dealing with critical fiscal, operational, and acquisition issues. In order for the NRO to execute its mission and provide the overhead reconnaissance vital to create decision advantage for our nation, the NRO must actively pursue solutions to these challenges.

Those who exercise oversight of NRO programs have the difficult task of balancing not just the value of the capabilities we provide, but also the complex processes involved in their execution. I don't envy our leaders who have taken on this difficult challenge. It is our challenge and our responsibility to execute the President's budget with an unwavering commitment to our mission, in a fiscally responsible manner. The lessons learned from the failure of acquisition reform have been hard, but they have taught us well. One of our greatest challenges today is the humbling work of rebuilding our credibility and regaining the confidence of our nation's leaders and citizens.

A leading question being asked today is whether or not the NRO can or should be allowed to recover or is a radical realignment in National Security Space required. We know and understand the changes required to address the concerns of Congress as well as DOD and DNI oversight. By transforming our business processes, restructuring our organization and our architectures, and applying proven acquisition strategies to system acquisitions, NRO leadership has laid the groundwork for an organization poised to respond quickly, economically, and effectively to the national security challenges before us. However, funding constraints and changes in NRO reporting requirements could affect the NRO's ability to execute our mission.

National Security Space as a whole is suffering from industrial base issues traceable to many factors: acquisition reform, low-volume production rates and international business restrictions. These issues not only affect major system integrators, but they have had a devastating effect on

our 2<sup>nd</sup> and 3<sup>rd</sup> tier parts suppliers. Coupling our future planning to the National Security Space industrial base issue is key to supporting our end customers - and our future acquisition success. The Intelligence Community's ability to collect, process, analyze, exploit, and disseminate intelligence in a timely fashion has increased dramatically in response to evolving threats. Yet today, maintaining decision advantage is still a challenge. As we employ cutting edge technology to create agile technical solutions to complex and evolving threats, our adversaries are also constantly modifying their tactics. They find the best technology available, take advantage of increased access to information, and devise significant denial and deception strategies to try and gain the upper hand.

The September 11<sup>th</sup> attacks on U.S. soil brought home the truth that we as a nation were unprepared for the challenges we now face as a result of globalization and rapid technological advances. Lack of information sharing in an age of ubiquitous information may seem an oxymoron, but the failure of communication between agencies that was exposed in the wake of that tragedy revealed the stark truth. There is a difference between knowing the information you need is out there, and having access to that information.

The United States Intelligence Community did not have the infrastructure, systems, or processes in place necessary to share the information and intelligence we already had with those who needed to know. The events of that day made it very clear that if we were going to maintain decision advantage in today's world, we would have to radically change the way we collected, processed, stored, shared, and disseminated intelligence to our users.

In the ensuing years, we as a nation have made great strides in reworking our architectures, networks, systems, processes and workflows to better address our rapidly changing national security requirements. The Intelligence Community has been a primary enabler of this national critical infrastructure transformation, but there is still much left to do.

The workforce that is acquiring and operating NRO systems is playing a vital role in our nation's efforts to attain global stability and peace, which in the end is what the mission is really all about. If we do our job, no matter what the threat, the United States will maintain decision advantage over our adversaries.

The trouble is that we are struggling with the challenges of maintaining our best-in-class space acquisition cadre: We are rapidly losing the NRO's "era of excellence" workforce. By the same token, roughly 60% of our workforce has been with the NRO five years or less. This means a high percentage of our workforce has never seen the type of program execution that characterized the NRO's "golden era" of acquisition excellence. We now have program managers and systems engineers who are very technically competent but have not had the hands-on experience, bruises, and accumulated scar tissue essential for their development as effective managers and leaders of large-scale acquisitions.

So, in the face of all these challenges; an expanded mission, acquisition credibility, fiscal constraints, promoting innovation, workforce and industrial base issues what are we doing in these areas to improve the execution of our mission?

The NRO has already come a long way down the path to recovery from acquisition reform – but we still have a long way to go. One of the unfortunate effects of that era was a loss of credibility

and confidence in our ability to execute programs, but the tide has turned. Already over the past year, the NRO has witnessed some great successes due to continued focus on mission operations and significant organizational changes, and as a result Congress – and the nation – are demonstrating a renewed confidence in our ability to deliver on our commitments.

The NRO Transformation was conceived to lay the groundwork for our path back to acquisition excellence, and to answer our user's call for multi-source intelligence on responsive timelines. We began by delineating a new structure that realigned functional areas, and established offices and positions to ensure effective oversight and accountability.

The goals were to create an effective system of checks and balances to foster improved mission success in acquisition and operations, and create a "corporate" focus on the ground element of our space system architecture.

The first step was to create the position of Chief Operating Officer. The COO now oversees the acquisition and operations elements on a day to day basis. To ensure the integrity of our acquisition processes, the COO has established processes and methodologies that will focus attention on the major risks and issues of ongoing NRO acquisitions in a more open and deliberative manner.

In order to ensure that the NRO is operating in concert with its mission partners, both NGA and the NRO play a significant role in the execution of COO duties. As Associate Chief Operating Officers, NGA's and NSA's senior civilians at the NRO contribute to the day to day management of NRO acquisitions, operations, and R&D activities, and ensure mission partner equities are addressed across the enterprise.

The keystone of the NRO Transformation that threads it all together, is the stand-up of an integrated corporate Systems Engineering function. Systems Engineering has helped the NRO establish and implement consistent engineering and program management processes across the organization. Strengthening our enterprise systems engineering program has been critical to establishing the internal checks and balances required for the effective delivery of complex, multi-segment architectures. We have taken the necessary steps to re-establish internal discipline through a total rework of our governance processes. Reinforcing the relationships between the development organizations, their organic systems engineering support and enterprise systems engineering will ensure successful management of requirements and interfaces.

A further move was the consolidation of independent Mission Assurance – related functions under more focused leadership. The Mission Assurance lead works with and across all NRO programs to ensure that a consistent set of mission assurance standards and practices have been identified – and most importantly – are being followed. Our mission assurance lead is also collaborating closely with industry and our mission partners to tackle tough issues such as standards, critical technologies and second and third tier suppliers.

To enable the delivery of integrated, multi-sensor information in a timely, transparent manner, we have created a single Systems Operations Directorate to integrate all systems operations activities. This move is a step toward enabling horizontal integration across our multi-site architecture, and aligning operations with a new focus on a common ground operations paradigm.

One example of our cross-community collaboration is the sharing of NRO services and information with the DoD's Distributed Common Ground System (DCGS) -IC, NGA's e-GEOINT web services, and NSA's Real Time Regional Gateway (RTRG).

The new, strategic corporate focus on our ground architecture is addressed with the creation of the Ground Enterprise Directorate. We recognize our responsibility to collect data and provide the network backbone for the fused intelligence that users across the Intelligence Community and the DoD depend on as they examine, analyze, and report on significant events, areas of concern, and tactical operations. The information sharing capabilities emerging from the NRO's Ground Transformation are key enablers for overcoming the interoperability/integration challenges faced by our Community today. Our Ground Enterprise Directorate is developing an NRO ground infrastructure that will meet that responsibility, and ensure the networks, systems, and tools are in place that will not only allow but facilitate collaboration between analysts, INTS, and stakeholders across organizations and communities.

As we move forward, users will have the choice to request specific data, or have it automatically delivered to their desktops. Giving users the ability to interact in this way will result in improved situational awareness, reduced collection time, enhanced target coverage, increased robustness of collection capability, and sharpened accuracy through cross-cueing and correlation.

We are working closely with our mission partners to improve the dissemination process, with the goal to deliver as much information as possible to the end user at the lowest possible level. The NRO and its mission partners are looking at emerging technologies being used by commercial entities to deliver this value-added content as quickly and effectively as possible.

Virtualization is an area that is transforming the IT world, and it can – and will – transform the NRO. For example, our current footprint is over 400,000 square feet of raised-floor data center space, filled with IT that was bought as stovepipes. Virtualization provides us an opportunity to significantly reduce our space, cooling, and power requirements – we are looking at around 150,000 square feet, as opposed to 400,000. That's a 63% reduction. Our mission partners, to include CIA, NGA, and NSA, are already reaping the benefits of virtualization. (So we're finally facing the 90s.) It's absolutely critical that we harvest the funds that would be used for power and cooling to meet the mission requirements of the future.

One of the other outcomes of virtualization is the ability to unify our upstream processing to provide value-added intelligence to our mission partners and community customers.

Companies like Google, Microsoft, and Amazon are at the forefront of a technological revolution that has already transformed the way our society creates, stores, organizes, seeks and distributes and uses information. By leveraging emerging technologies already in play in the commercial marketplace such as metadata correlation and tagging, we can address our most pressing intelligence challenges in a quick and cost-effective way, getting the data out there within the decision timelines of our most dynamic users in remote and volatile locations.

If industry or another government agency has done the heavy lifting and has non-developmental solutions that we can leverage, why wouldn't we do that? It just makes sense and allows our dollars to go further. GED is reaching out to our partners and identifying those opportunities.

In the future, we can be sure that our adversaries will take full advantage of new technologies. We need to stay ahead of that curve, putting processes, networks, and systems in place that will quell emerging threats and avert potential crises. As the NRO and our mission partners transition to an optimized Intelligence Enterprise, we need to keep the mission in mind. We can only achieve these mission priorities with an extraordinary workforce, committed to providing the best overhead reconnaissance in the world to our customers.

We recognize that both government and industry must make a deliberate commitment to train and mentor a new space cadre across all areas of the organization. We must provide visionary management that creates a culture of creativity and innovation. We must attract the highest caliber talent available, and empower them to develop innovative capabilities that can provide new sources and methods for intelligence, and improve the technical performance of existing NRO systems.

We must provide training and career guidance to the talented young professionals who have made a commitment to this industry, and this mission. The NRO has enhanced its training programs, established new certification standards, and strengthened its internal oversight processes. At the same time, we have implemented ways to grow the workforce and provide the experience essential for development. Our Talent Management Initiative combines training, career development and succession planning, not only to ensure our workforce is given opportunities to develop skills through actual mission execution, but to ensure that we have identified succession strategies for critical positions.

The Air Force and the Central Intelligence Agency, along with the Navy and Army, provide acquisition management, systems engineering, and the technical and support personnel required to execute the NRO mission. The NRO relies on these external organizations to meet its mission-critical government staffing requirements. The hybrid IC/DoD nature of the NRO is our strength. Skill-depth, management continuity, and workforce stability have become significant concerns. So has the ability to recruit, retain, and reward personnel consistent with the NRO's unique mission requirements. This is a common issue across the National Security Space sector and not faced by the government alone.

As resources are stretched and priorities continue to evolve, we need to augment the existing NRO staffing model to include direct hiring authority to ensure the NRO has the skills and numbers of people it needs to execute its mission. I have asked the DNI and Secretary of Defense to give the NRO direct hire authority to provide management continuity, workforce stability, long-term perspective, and to cultivate the unique skills required to execute the NRO mission. Our objective would be to start building this element of our workforce in FY2010.

The NRO is aggressively working its industrial base issues. The NRO co-chairs, along with the DoD Executive Agent for Space, the Space Industrial Base Council, which assesses critical sources and services needed to build and sustain America's national security space systems. We analyze U.S. and foreign markets and policies to ensure that America's civil, commercial, classified, and unclassified space communities have the resources to perform their missions. We address issues of immediate concern, such as common parts and component problems that may

affect mission assurance efforts, and we are also focusing on the larger problem of maintaining the industrial base over the long term.

The government needs to sustain critical suppliers, services, and processes regardless of acquisition programs in instances when the national space community is the only market. The NRO is working with the Air Force and NASA to define a resource line to be applied by the national security space community to sustain our most critical component suppliers.

We are focused on maintaining a viable industrial base to meet all of our national security space needs. Long-term solutions will likely include closer cross-agency procurement coordination and integrated industrial base investment planning.

We've been busy transforming our processes, infrastructures and system architectures to ensure the NRO will meet evolving mission requirements. There are those out there who are asking why we are doing this when people are questioning whether overhead reconnaissance is even an appropriate solution to today's challenges. It's a good question. If you look at the ever-expanding missions NRO systems support, the value of applying NTM to today's intelligence problems is readily apparent.

The preponderance of multi- source intelligence has in some arenas lessened the call for space systems to collect against and answer hard problems, but we are still a primary intelligence source for denied areas. Those candles need to be reignited and the mission kept alive. Far too often we scale back and even go as far as eliminating capabilities. Unless a balance can be struck, I am truly concerned for continued effective support to our warfighters and decision makers..

As the NRO implements our Strategic Plan, you will begin to see how the changing architecture will enable and support enhanced TCPED workflows. The wrapper of collection management and data exploitation which surrounds the NRO's collection activities places us in a position to tag and collate information about our collection activities, what they want, and why they want it. NRO systems are, in effect, a nexus of aggregated information, and as such can enhance comprehensive campaigns to solve intelligence problems. We have the ability to merge, tag, and correlate the metadata early in the overhead intelligence chain. With the ability to integrate and correlate that data, the potential value of intelligence grows exponentially. This creates a kind of "Einstein Effect" for the Intelligence Enterprise, transforming the data from our "all-seeing" systems into an "all-knowing" body of information and understanding.

Aggregated intelligence gives us excellent insight across the board, enhancing existing products and enabling information sharing across communities. With access to multi-layered information, intelligence professionals can work together to fuse information and create adaptable, responsive intelligence products that can be checked, corrected, modified, and updated in real-time to improve situational awareness and save lives.

The NRO Transformation has improved business processes, restructuring our infrastructure and our architectures to create a leaner, more streamlined organization. By applying proven acquisition strategies to system acquisitions, NRO systems can continue to support the mission and maintain decision advantage for the nation, but without support from our parent agencies and

Congress, it will be difficult to move forward. People are talking about the future of Overhead – we need to keep having those discussions, addressing the viability, value and validity of national technical means to the mission. Budget issues will play a big role in those conversations.

It must be acknowledged that this is not a cheap business. Satellite systems are expensive. As budgets tighten, our leadership looks for ways to cut costs. We have already been at the business end of that stick, but as I'm sure everyone here is painfully aware, it will not be getting better any time soon. We must ask some hard questions:

How important is this mission to the nation? Are we willing to invest the time, money, and resources required to build and maintain an agile, responsive NTM architecture for the future? Can we afford to continue to provide the second-to-none overhead and communication capabilities that our users rely on today to maintain global decision advantage? How can we best support an industrial base to do so? My question is, "Can we afford not to?"

What happens if we back off? If we deplete our assets and provide less support to our users, how are we going to fill the gaps left in our wake? Are the alternative sources of information adequate?

These are questions we need to ask ourselves. There are new capabilities coming on line every day. In order to understand the right balance of airborne sensors and overhead collection required to accomplish the mission, we must include commercial satellite imagery as a supplement to NTM data.

For the past 30 minutes I have outlined the changing landscape of the NRO and the issues surrounding that landscape. Although our current landscape is in flux, our future path is fairly clear: Our leaders are asking us to do more with less, so we must rely more on our mission partners and industry as we expand in a positive way. What does that mean? To me it means collaborating, from the lowest level of action officers to directors & CEOs across communities and across our user base. Successful collaboration requires an integrated communication infrastructure that allows users to access and share data across INTs, across agencies, and across architectures.

At the same time we began implementing our transformation and fleshing out the new NRO Strategic Plan, we started to evolve our strategic vision into an architecture that could serve the entire Intelligence enterprise. We are close, and in the coming months we will send it to our leadership. I believe that the principles, concepts, networks and architectures are sound, and will lay the foundation for a truly mission-focused intelligence enterprise that help our nation maintain decision advantage far into the future.

I'll leave you with one admonition: Whether a government partner or one of our industrial teammates, stay focused on the mission. It's easy to get caught up in the details of the work we do every day, and sometimes we lose sight of the big picture. Just take a moment, every day, and think about why we are doing what we do, who we are supporting and how we are helping to maintain peace and freedom in our nation. It tends to put everything into perspective when you realize that you are part of the United States Intelligence Enterprise, working to save lives and

ensure a safe and peaceful future for our nation. As the mother of young Christopher told us back in March: Never forget the mission.

Thank you very much. We have a few minutes for questions. I am going to turn it over to Jeffrey Harris.

(Applause.) (Questions and Answers transcript follows.)

**MR. HARRIS:** Lots of questions, Scott, about innovation. Is the threat driving us to innovation? Are there enough good ideas for innovation? In uncertain forward budgets, is the budget available to continue to innovate?

**DNRO LARGE:** That is a multi-point question. Are the threats driving us to innovation? Yes and no. Because of the threats, things are vastly broken. This is a matter of compelling opportunity. Innovation is going to allow us not only to address the threats, but will position us to deal with any unknown threats we can see in the future.

We talk about innovation and the ground. There are certain things we can innovate in space – new phenomenology, ways of doing things, trying to meet the budget. Part of the question was is the budget driving us? Is it a constraint? Yes, it is a constraint. One of the ways we are trying to address that is by no longer developing systems in stovepipes and, in our case, it is our ground architectures. We are not developing ground architectures in a manner that says you are building it for this satellite system. We are getting away from that completely.

Part of the challenge is we still have to deal with legacy systems, but our objective is a commonground architecture leveraging today's commercial capabilities and information technologies. This will allow us to try to reduce the budget pressure from building stovepipe systems for the ground. So I think that budget innovation and the threat all go hand in hand. If we are successful in what we are trying to do on the ground in particular, I think you will see a much more flexible response to threat in a very budget-constrained environment that will satisfy the user's needs.

**MR. HARRIS**: Mission partners, words or actions – how does the all-source community fit into that? Should we just combine all the organizations together?

**DNRO LARGE:** All-source is a great word because all source also means from my perspective thinking about information in a different way from multiple sources, multiple ints. Our key mission partners, NSA and NGA, are the ones that we integrate with. We get our tasking from them which comes from the end users. When you look at it from an all-source perspective, if you look at what NGA, NSA and the NRO are doing in terms of the integrated intelligence architecture that the DNI and the USDI are leading, or the integrated information program that the DNI is trying to put in place with the intelligence community which is also integrating with the DOD, the fact that mission partners and all-source analysts are coming together from our perspective as a data provider, we see opportunity.

It is not a matter any longer of just looking at what the NRO collects in terms of imagery and SIGINT. We are in a position with the system that we have today and in the future of understanding the tasking that is coming in, where the data is going, and being able to apply

metadata techniques so we can give the all-source analysts not just what they asked for, but also enlighten them to what is out there, and then provide them the access to that data.

So I think from a mission-partner all-source perspective, pushing everybody together into a single organization, my fear will be, in some cases, you are going to lose some of the uniqueness that goes with some of the specific ints that are out there. The challenge becomes how do you architect the multi-int fusion capability and you are seeing that here at this conference.

**MR. HARRIS**: Analysis-space and Collection-space, does the NRO participate pulling this community together?

**DNRO LARGE**: Yes. Our job is not intelligence analysis. We do not produce finished product, but we enable analysis. We absolutely can provide can provide value-added content to go out to the users. In terms of collection space, the key for us is not only to do what we do, but ensure that what we do on the collection side puts the hooks in to integrate with the other collection platforms that are out there – airborne, ground systems, even HUMINT and open source. That is a challenge for us as we have been fairly insular for quite a while, but we have got to knock down those walls.

You are seeing more and more of the NRO reaching out to support and enable our mission partners and end users in the field.

**MR. HARRIS:** Last question. In this environment of air space integration such as increased use of UAVs and commercial and the excitement all this has generated – is the tent big enough? How does the NRO and the community incorporate or improve their space integration?

**DNRO LARGE:** Two aspects to that. From an analytical perspective, the users working with NGA and NSA and ourselves or the entire intelligence community and the DOD have to help us understand how they are using those other sources of information. Commercial plays a critical role, not only for the intelligence community, but for the DOD fielded users.

What is important for the NRO is ensuring we understand how the NGA and NSA and the users want to take advantage of that so we protect our ground architecture, in particular, as well as look at what satellites and overhead systems we need to build. We need to balance that because if we can't come to some balance, I may not build the right thing. In the environment we are in, there are a lot of hard questions that we have to ask such as "How much are we willing to invest in overhead? How much are we willing to invest in national-security space?"

If we can not come to a conclusion in light of these other sources of data, I really fear for our ability to satisfy the users in the long term and that is absolutely crucial. In order to do this we need your help, as well as to help the Congress and the administration, particularly with the new administration coming into place.

MR. HARRIS: Scott, thank you.

**DNRO LARGE:** My pleasure. Thank you.

(Applause)